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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,494	02/10/2004	Rodney Olson	ENVI2-P3052	1457

21259 7590 03/06/2006

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EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,494

Applicant(s)

OLSON, RODNEY

Examiner

Frank M. Lawrence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 7-44 is/are rejected.
- 7) ☒ Claim(s) 3, 4 and 6 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and *generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.*

2. The disclosure is objected to because of the following informalities: In line 7 of page 7, "55" should be changed to "50" and in line 14, "40" should be changed to "30" to remain consistent with the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 29, 30 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 29 recites the limitations "the retained odor-causing agent" and "the odor-causing agent from the regenerate contact surface" in lines 7-8. There is insufficient antecedent basis for these limitations in the claim. Claim 30 is rejected for depending from a rejected parent claim.

6. Claim 44 recites the limitation "the media bed" in line 3. There is insufficient antecedent basis for this limitation in the claim with respect to claim 19.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 5, 18-21, 29, 31, 37, 38 and 40-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Seagle (6,019,817).

9. Seagle '817 teaches a system for capturing and destroying VOC substances, comprising a contact chamber including a sump (14) with a gas inlet (16), a carbon media bed (12, 18), an exhaust chamber above the media bed, sprayers (24) for periodically spraying a water solution onto the bed for removing contaminants and leaching absorbed contaminants into the sump, and a drain (143) for removing contaminated water from the sump (see figures, col. 1, lines 7-12, col. 3, lines 45-50, col. 5, lines 15-24, col. 6, lines 6-67). The presence of a control means for operating the sprayers and a fluid supply line to the sprayers is necessary and inherent. The method limitations of claims 20 and 21 do not limit the apparatus of claim 19 in a way that distinguishes over the patent.

10. Claims 1, 2, 7, 8, 16-22, 29, 31, 32, 37, 38 and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Fornai et al. (6,843,835).

11. Fornai et al. '835 teach a scrubber for removing odorous VOC's or sulfur containing gases from air, comprising a contact chamber (3) including a sump with a lower gas inlet, a

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packed bed of contact material (19), an exhaust chamber above the bed, sprayers (20) for periodically or continuously spraying an aqueous chemical solution onto the bed for contaminant removal, a chemical supply line with a pump (10) connected between the sump and the sprayers, a drain for removing contaminated solution from the sump, a standby tank (5) in the supply line containing a chemical additive such as hypochlorite for addition to the chemical solution, and an automatic or microprocessor controller for controlling the system operation (see figures, col. 1, lines 27-38, col. 3, lines 15-42, col. 4, lines 1-13, col. 4, line 60 to col. 5, line 8, col. 6, lines 9-12, col. 7, lines 25-56, col. 14, lines 19-24, col. 24, lines 4-14, col. 25, lines 22-29). The chemical solution can contain solid adsorbents such as zeolites (water softener) or alkaline agents to maintain a pH level of up to 14 (anticipating the claimed level of approximately 13). A periodic application of the chemical solution inherently applies a contact surface on the bed that acts to remove contaminants.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 9-15, 23-28, 33-36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fornai et al. '835 in view of applicant's admitted prior art.

14. Fornai et al. '835 disclose all of the limitations of the claims except that the chemical solution includes sodium hydroxide in a preferred amount and that the fluid is deposited and the sump is drained at least once every twenty-four hours. Applicant's admitted prior art states that

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typical scrubbers operate by combining gaseous H₂S with a chemical liquid such as sodium hydroxide and water to extract the H₂S from the gas. It would have been obvious to one having ordinary skill in the art at the time of the invention to use sodium hydroxide as the alkaline substance in the chemical solution of Fornai et al. '835 in order to provide an inexpensive and common alkaline that is known to be useful for extracting H₂S from a gas stream. Absent a proper showing of criticality or unexpected results, the depositing and draining frequencies and the sodium hydroxide concentration are considered to be parameters that would have been routinely optimized by one having ordinary skill in the art at the time of the invention based on operating conditions and the level of purification that is desired.

15. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fornai et al. '835 in view of Moore et al. (6,464,944).

16. Fornai et al. '835 disclose all of the limitations of the claim except that the sump further includes a chemical inlet to receive the chemical fluid. Moore et al. '944 disclose a gas scrubber having a chemical inlet (87) connected to the sump and a second inlet connected to spray nozzles (see figure 6, col. 4, lines 56-57). It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a sump inlet for chemicals in order to provide an means for adding additional reagents to the solution.

Allowable Subject Matter

17. Claims 3, 4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 disclose gas treatment systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 571-272-1161. The examiner can normally be reached on Mon-Thurs 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank M. Lawrence
Primary Examiner
Art Unit 1724

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Frank Lawrence
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